	1	STATE OF ALASKA					
	2						
	3						
	4	Before Commissioners: T.W. Patch, Chairman					
	5	Kate Giard Paul F Lisankie					
	6	Robert M. Pickett Janis W. Wilson					
	7						
	8	In the Matter of the Revenue Requirement and ) Cost of Service Study Designated as TA381-1 ) U-10-29					
	9	Filed by ALASKA ÉLECTRIC LIGHT AND ) POWER COMPANY ) ORDER NO. 15					
	10	ý					
	11	ORDER ACCEPTING PARTIAL STIPULATION, DETERMINING REVENUE REQUIREMENT AND RATE DESIGN ISSUES, APPROVING PERMANENT					
	12	RATES, AND APPROVING TARIFF SHEETS					
	13	BY THE COMMISSION:					
	14	Summary					
	15	We accept the unopposed partial stipulation filed in this matter. We					
	16	determine the revenue requirement and rate design issues for Alaska Electric Light and					
533	17	Power Company (AEL&P).					
276-4	18	Background					
07) 2	19	AEL&P filed TA381-1, requesting a 24 percent permanent across-the-					
TX (6	20	board rate increase to base demand and energy charges. <sup>1</sup> This request was based					
22; T	21	upon a proposed revenue requirement of \$43,135,748 and projected revenue deficiency					
6-62	22	of \$15,827,289. <sup>2</sup> AEL&P asserted that this revenue deficiency justified a 59 percent					
1) 27	23	increase in the base rates charged firm customers. <sup>3</sup> AEL&P proposed to mitigate this					
06)	24	<sup>1</sup> <i>Tariff Advice Letter No. 381-1</i> , filed May 3, 2010 (TA381-1), at 4.					
	25	<sup>2</sup> TA381-1 at 3; Revenue Requirement Study, Schedule 5.					
	26						
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increase by moving recognition of \$3,461,863 of interruptible energy sales revenue from 1 its cost of power adjustment (COPA) mechanism into base rate calculations; by 2 including \$3,191,898 of projected future interruptible energy sales revenue in base rate 3 calculations; and by forgoing recovery of approximately \$3,300,000 of its revenue 4 requirement.<sup>4</sup> With these adjustments, AEL&P projected a total revenue deficiency of 5 22.1 percent.<sup>5</sup> or \$5.873.528.<sup>6</sup> AEL&P has proposed recovering this revenue deficiency 6 through the requested 24 percent increase in energy and demand charges, with no 7 change to its customer charges.<sup>7</sup> 8

AEL&P requested an interim and refundable across-the-board demand
and energy charge rate increase of 20 percent, effective for billings rendered after
June 18, 2010, in the event that we suspend TA381-1 for further investigation.<sup>8</sup>
TA381-1 included a cost-of-service study,<sup>9</sup> a revenue requirement study,<sup>10</sup> and
proposed tariff sheets. AEL&P also submitted prefiled direct testimony of Timothy D.
McLeod,<sup>11</sup> Constance S. Hulbert,<sup>12</sup> Thomas M. Zepp,<sup>13</sup> and David A. Gray.<sup>14</sup>

<sup>4</sup> TA381-1	at	3-4.
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<sup>5</sup>TA381-1 at 3.

 $^{6}$ \$15,827,289 - \$3,461,863 - \$3,191,898 - \$3,300,000 = \$5,873,528.

<sup>7</sup>See TA381-1 at 4.

<sup>8</sup>TA381-1 at 4.

<sup>9</sup>Alaska Electric Light and Power Company Cost of Service Study, filed May 3, 2010 (COSS).

<sup>10</sup>*Alaska Electric Light and Power Company Revenue Requirement Study*, filed May 3, 2010 (RRS).

<sup>11</sup> Prefiled Direct Testimony of Timothy D. McLeod, admitted May 10, 2011 (T-5
 McLeod Direct).

<sup>12</sup> Prefiled Direct Testimony of Constance S. Hulbert, admitted May 11, 2011 (T-7
 Hulbert Direct).

24 <sup>13</sup> Prefiled Direct Testimony of Thomas M. Zepp, admitted May 11, 2011 (T-9 Zepp Direct).

<sup>14</sup> Prefiled Direct Testimony of David A. Gray, admitted May 9, 2011 (T-1 Gray Direct).
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We issued public notice of the request.<sup>15</sup> We received a multitude of 1 comments regarding this requested rate increase or requesting that a public hearing on 2 this increase be held in Juneau before a decision on AEL&P's request was reached.<sup>16</sup> 3 We held a consumer input hearing in Juneau on June 15, 2010, at which approximately 4 fifty oral and written comments regarding AEL&P's proposed rate increase were 5 received.<sup>17</sup> 6 We suspended TA381-1 into this docket and denied AEL&P's request for 7 an interim rate increase.<sup>18</sup> We scheduled a hearing on AEL&P's request for an interim 8 rate increase.<sup>19</sup> AEL&P submitted a brief on interim rate increase issues,<sup>20</sup> and an 9 errata to TA381-1.<sup>21</sup> AEL&P employees Kenneth S. Willis, Hulbert, and McLeod 10 testified at the interim rate increase public hearing.<sup>22</sup> With these witnesses, AEL&P 11 introduced twenty-one exhibits into the record.<sup>23</sup> 12 13 14

<sup>15</sup>Notice of Utility Tariff Filing, dated May 5, 2010.

<sup>16</sup>See Public comments, filed in TA381-1.

<sup>17</sup>The transcript of this hearing can be viewed by following the link to our website and clicking on the "Documents" Tab: <u>http://rca.alaska.gov/RCAWeb/Dockets/DocketDe</u> tails.aspx?id=dfb6efef-bbb4-42a7-951d-6e1209b20ee0

<sup>18</sup>Order U-10-29(1), Order Suspending TA381-1, Denying Request for Interim Rates, Scheduling a Hearing on Interim Rates, Scheduling a Prehearing Conference, Inviting Petitions for Intervention and Participation by the Attorney General, Addressing Timeline for Decision, Designating Commission Panel, and Appointing Administrative Law Judge, dated June 17, 2010 (Order U-10-29(1)), at 2-6.

<sup>19</sup>Order U-10-29(1) at 6.

<sup>20</sup>Alaska Electric Light and Power Company Interim Rate Relief Request Prehearing Brief, filed July 6, 2010.

<sup>21</sup>*Errata to Tariff Advice No.* 381-1, filed July 6, 2010.

<sup>22</sup>Public Hearing, July 6, 2010. Tr. 30-87.

<sup>23</sup>Exhibits H-1 through H-21, admitted July 6, 2010. Tr. 24.

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1	We granted AEL&P a 20 percent interim and refundable rate increase,					
2	effective July 16, 2010. <sup>24</sup> The Attorney General (AG) elected to participate in this					
3	proceeding. <sup>25</sup> The Juneau Peoples' Power Project (J3P) petitioned to intervene in this					
4	proceeding. <sup>26</sup> AEL&P submitted corrections to TA381-1 and the prefiled testimony of					
5	Gray. <sup>27</sup> We granted J3P party status in this proceeding. <sup>28</sup>					
6	J3P submitted prefiled testimony of Randall A. Sutak. <sup>29</sup> The AG submitted					
7	prefiled testimony of Janet K. Fairchild <sup>30</sup> and David C. Parcell. <sup>31</sup> The City and Borough					
8	of Juneau requested that we hold the hearing for this proceeding in					
9	Juneau. <sup>32</sup> We ordered that the hearing in this proceeding be held in Juneau. <sup>33</sup> AEL&P					
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13	<sup>24</sup> Order U-10-29(2), Order Granting Interim and Refundable Rate Increase, Approving Tariff Sheets and Requiring Filing, dated July 16, 2010, as corrected by					
14	Errata Notice to Order U-10-29(2) (Order U-10-29(2)).					
15	<sup>26</sup> Juneau Peoples' Power Project Bill Burk Vincent Havden John and Carolyn					
16	Martin, Randy Sutak, and Cheryl K. Moralez Joint Petition to Intervene, filed July 19, 2010.					
17	<sup>27</sup> AELP's Errata to Tariff Advice No. 381-1, filed August 13, 2010 (Second Errata) This errata also refers to changes to T-1 Grav					
18	<sup>28</sup> Order U-10-29(4), Order Granting Petition to Intervene in Part, Requiring Filings, and Scheduling Prehearing Conference, dated September 27, 2010					
19	<sup>29</sup> Prefiled Direct Testimony of Randall A. Sutak, admitted May 12, 2011 (T-13					
20	Sutak Direct).					
21	Direct).					
22	<sup>31</sup> Prefiled Direct Testimony of David C. Parcell on Behalf of the Attorney General: admitted May 12, 2011: Notice of Filing Frrata to Prefiled Testimony of David Parcell					
23	admitted May 12, 2011(T-12 Parcell Direct). Both documents are admitted as one exhibit					
24	<sup>32</sup> Correspondence from L. Sica, Municipal Clerk, City and Borough of Juneau,					
25	filed February 3, 2011. <sup>33</sup> Ordor II-10-29(9) Ordor Modifying Procedural Schedule, deted March 3, 2011					
26						
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submitted prefiled reply testimony of McLeod,<sup>34</sup> Hulbert,<sup>35</sup> Zepp,<sup>36</sup> Gray,<sup>37</sup> Willis,<sup>38</sup> and 1 Joseph Perkins.<sup>39</sup> 2

AEL&P submitted revised prefiled reply testimony of Willis<sup>40</sup> and 3 Perkins.<sup>41</sup> AEL&P and the AG filed a stipulation between themselves resolving some of 4 the issues raised in the testimony of Fairchild and Hulbert.<sup>42</sup> J3P did not oppose our 5 acceptance of this stipulation.<sup>43</sup> The AG submitted corrections to the prefiled testimony 6 of Parcell and Fairchild.<sup>44</sup> J3P submitted a correction to the prefiled testimony of 7 Sutak.<sup>45</sup> The parties filed statements of issues.<sup>46</sup> J3P requested subpoenas for two 8 additional witnesses.47 On an expedited basis, we denied J3P's request for 9 <sup>34</sup>Reply Testimony of Timothy D. McLeod, admitted May 10, 2011 (T-6 McLeod 10 Reply). 11 <sup>35</sup>Prefiled Reply Testimony of Constance S. Hulbert, admitted May 11, 2011 (T-8 Hulbert Reply). 12 <sup>36</sup>Reply Testimony of Thomas M. Zepp, admitted May 11, 2011 (T-10 Zepp) 13 Reply). <sup>37</sup>Prefiled Reply Testimony of David A. Gray, admitted May 9, 2011 (T-2 Gray 14 Reply). <sup>38</sup>Prefiled Reply Testimony of K. Scott Willis, filed March 4, 2011 (withdrawn on 15 April 13, 2011). 16 <sup>39</sup>Prefiled Reply Testimony of Joseph Perkins, filed March 4, 2011 (withdrawn on April 13, 2011). 17 <sup>40</sup>Prefiled Reply Testimony of K. Scott Willis (Revised 4/13/11), admitted May 9, 2011 (T-3 Willis Revised Reply). 18 <sup>41</sup>Prefiled Reply Testimony of Joseph Perkins (Revised 4/13/11), admitted May 10, 2011 (T-4 Perkins Revised Reply). 19 <sup>42</sup>Unopposed Partial Stipulation, filed April 28, 2011 (Stipulation). 20 <sup>43</sup>Settlement Report, filed April 28, 2011 (Settlement Report), at 2. 21 <sup>44</sup>Notice of Filing Errata to Prefiled Testimony of David A. Parcell, filed May 2, 2011; Notice of Filing Errata to [Fairchild] Prefiled Testimony, filed May 2, 2011. 22 <sup>45</sup>Errata of Randall A. Sutak's Testimony, filed May 3, 2011. 23 <sup>46</sup>Attorney General's Statement of Issues, filed May 2, 2011; AELP's Statement of Issues, filed May 2, 2011; Juneau Peoples' Power Project's Statement of Issues, filed 24 May 3, 2011. 25 <sup>47</sup> Juneau Peoples' Power Project's Witness List and Request for Subpeona [sic] of Additional Witnesses, filed May 3, 2011. 26 U-10-29(15) - (09/02/2011) Page 5 of 44

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subpoenas.<sup>48</sup> The public hearing in this proceeding was held in the City and Borough of
Juneau Assembly Chambers on May 9 through 13, 2011. Additional oral public
comment was received on the morning of May 10, 2011.<sup>49</sup> We also received additional
written public comments.<sup>50</sup> With the consent of the parties, we extended the statutory
deadline for issuance of a final order in this proceeding.<sup>51</sup>

#### Discussion

Acceptance of Stipulation Reducing Revenue Requirement

Before the hearing, AEL&P and the AG stipulated to a decrease in 8 AEL&P's pro forma test year revenue requirement.<sup>52</sup> The stipulation proposed a 9 reduction of both AEL&P's operating expenses and rate base. The reductions were 10 based on proposed adjustments presented in AG witness Fairchild's testimony. 11 Stipulated decreases to AEL&P's amortization expense, property tax allowance, bad 12 debt expense, and miscellaneous expense result in a \$292,259 reduction to operating 13 expenses. Stipulated decreases associated with prepayments, deferred debt debit, and 14 15 cash working capital allowance result in a \$1,810,265 reduction to AEL&P's pro forma 16 rate base. J3P, while not a signatory, does not object to the stipulation between AEL&P and the AG.53 17

<sup>48</sup>Order U-10-29(12), Order Accepting Late-Filed Documents, Denying Request for Subpoena of Additional Witnesses, and Granting Request for Expedited Consideration, dated May 6, 2011.

<sup>49</sup>Tr. 381-394.

<sup>50</sup>Correspondence from B. Donnelly, filed May 2, 2011; Correspondence from H. Zimmerman, filed May 12, 2011.

<sup>51</sup>Order U-10-29(13), Order Extending Statutory Timeline with Consent of Parties and Extending Tariff Suspension, dated July 27, 2011. Order U-10-29(14), Order Extending Statutory Timeline with Consent of Parties and Extending Tariff Suspension, dated August 26, 2011.

<sup>52</sup>Stipulation.

<sup>53</sup>Settlement Report, filed April 28, 2011, at 2.

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Parties may stipulate among themselves to the resolution of issues 1 outstanding in a proceeding.<sup>54</sup> If we accept the stipulation, the parties are bound by its 2 The stipulation between AEL&P and the AG proposed to reduce AEL&P's 3 terms. operating expenses and rate base. Further, the stipulation reduced the number of 4 issues to be addressed at hearing and helped to conserve the parties' and the 5 commission's time and resources. The prefiled testimony and exhibits relied on in the 6 stipulation were admitted as evidence in this proceeding<sup>55</sup> and no party of record 7 opposes our acceptance of the stipulation. Accordingly, we accept the stipulation, 8 subject to the express condition that no issue shall be considered to have been finally 9 determined or adjudicated by virtue of our acceptance of the stipulation. A copy of the 10 stipulation is attached to this order as Appendix A. 11

12 || Lake Dorothy Hydroelectric Project Prudence

One of the two main drivers behind AEL&P's requested rate increase is the increase in its hydroelectric costs due to the Lake Dorothy Hydroelectric Project (Lake Dorothy) project going into service.<sup>56</sup> J3P presented allegations asserting that AEL&P's decision to construct Lake Dorothy was not prudent.<sup>57</sup> The AG, who participates in our proceedings as a public advocate when he determines that participation is in the public interest,<sup>58</sup> presented no argument or evidence challenging

<sup>54</sup>3 AAC 48.166.

<sup>55</sup>Public hearings held July 6, 2010; May 9, 2011, through May 13, 2011 (admission of Exhibits H-1 through H-39, H-41 through H-43, H-45 through H-90, and T-1 through T-13).

<sup>56</sup>TA381-1 at 2.

<sup>24</sup>
 <sup>57</sup>See, e.g., Juneau People's Power Project's Statement of Issues, filed May 3, 2011, at 1.

<sup>58</sup>AS 44.23.020(e).

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the prudence of AEL&P's decision to build Lake Dorothy. AEL&P responded with 1 argument and evidence supporting the prudence of its decisions.<sup>59</sup> 2

The Federal Energy Regulatory Commission (FERC) has developed an 3 approach for addressing challenges to the prudence of costs incurred by a utility. Under 4 that approach, a utility's costs are presumed to be prudently incurred. It is up to the 5 6 party challenging prudence to make a substantial showing that the challenged costs were imprudently incurred. 7

The approach taken by the FERC is consistent with prior decisions from 8 the Alaska Public Utilities Commission (APUC), our predecessor agency. In addressing 9 a challenge to expenses incurred by Kenai Pipe Line Company the APUC stated, "It is 10 an extraordinary measure for a regulatory agency to entirely disallow costs that were 11 actually and necessarily incurred to provide service. A disallowance of such costs 12 would normally be made when the costs are imprudently incurred by the carrier."<sup>60</sup> 13

Based on this guidance, we will review the arguments and evidence 14 presented by J3P to determine whether they have created a serious doubt as to the prudence of AEL&P's decision to construct Lake Dorothy (and therefore incur expenditures). A management decision is imprudent if a reasonable manager would not have made that decision.<sup>61</sup> Only if J3P has created a serious doubt will we then proceed to determine whether AEL&P has dispelled this doubt and proven the decision prudent.

<sup>61</sup>Order P-91-2(11) at 47.

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<sup>&</sup>lt;sup>59</sup>T-3 Willis Revised Reply; T-4 Perkins Revised Reply; T-6 McLeod Reply at 2-6; T-8 Hulbert Reply at 2-10.

<sup>&</sup>lt;sup>60</sup>Order P-91-2(11)/P-85-1(19), Order Prescribing Rate Base Methodology; Resolving Other Disputed Issues; Directing Kenai Pipe Line Company to File Revised Revenue Requirement and Rates for Period Beginning June 1, 1991; Striking DR&R Testimony; Establishing Schedule for Phase II of this Proceeding; and Extending Suspension Period, dated December 1, 1992 (Order P-91-2(1)), at 47.

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#### Evidence Regarding Prudence

J3P provided testimony that Hecla Greens Creek Mining Company (Greens Creek) was purchasing more interruptible, or excess, energy per year than Lake Dorothy was budgeted to produce.<sup>62</sup> J3P asserts that this is evidence that Lake Dorothy is not used and useful for AEL&P's firm customers, and thus Lake Dorothy costs should not be recoverable through rates charged firm customers.<sup>63</sup>

AEL&P presented evidence that its decision to develop Lake Dorothy was 7 prudent. One of the exhibits presented by AEL&P was the Juneau 20 Year Power 8 Supply Plan, dated December 1984.<sup>64</sup> This power supply plan discussed load growth 9 projections and power supply options available for the Juneau area. The plan found 10 that construction of Lake Dorothy had several advantages over other potential 11 generation resource additions.<sup>65</sup> AEL&P also introduced the 1990 Juneau 20-Year 12 *Power Supply Plan Update*.<sup>66</sup> This update identified Lake Dorothy as the lowest-cost 13 generation option over its life rotation.<sup>67</sup> The 1990 update recommended proceeding 14 with the FERC process for licensing Lake Dorothy.<sup>68</sup> AEL&P received a FERC 15 preliminary permit for Lake Dorothy in 1996.<sup>69</sup> AEL&P received a FERC license 16 authorizing construction of Lake Dorothy in 2003.70 17

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<sup>62</sup>T-13 Sutak Direct at 5.
<sup>63</sup>T-13 Sutak Direct at 5.
<sup>64</sup>Exhibit H-3.
<sup>65</sup>Exhibit H-3, Section 6 at 2-4.
<sup>66</sup>Exhibit H-4.
<sup>67</sup>Exhibit H-4, Section ES at 3-4.
<sup>68</sup>Exhibit H-4, Section VI at 3-4.
<sup>69</sup>Tr. 43; Exhibit H-2; T-3 Willis Revised Reply at 7, KSW-5.
<sup>70</sup>Tr. 43; Exhibit H-2; T-3 Willis Revised Reply at 7, KSW-5.

AEL&P introduced a 2006 consulting engineer's report prepared by CH2MHill for AEL&P and the Alaska Industrial Development and Export Authority (AIDEA).<sup>71</sup> The report reviewed AEL&P's load forecast and existing generation resources.<sup>72</sup> Further, the engineer's report investigated the Lake Dorothy design, output projections, economic projections, and risks.<sup>73</sup> CH2MHill found that the Lake Dorothy design and projections were reasonable and that the risks were prudently accounted for.<sup>74</sup>

AEL&P projects that production by Lake Dorothy will reduce the scheduled 8 use of diesel generation by 77 hours, from 113 hours to 36 hours, in an average water 9 year.<sup>75</sup> AEL&P estimates that this reduced use of diesel generation will result in annual 10 savings of approximately \$8,504 on diesel generator overhaul costs.76 AEL&P 11 estimated that Lake Dorothy would, on average, reduce the amount of annual diesel 12 generation by 3,318,405 kWh.<sup>77</sup> AEL&P estimates that, at the March 3, 2011, price of 13 \$3.54/gallon of diesel, this would reduce the amount of annual diesel purchases by 14 \$903.627.<sup>78</sup> Total Lake Dorothy output was estimated to be 74,500,000 kWh during an 15 average water year, and 62,800,000 kWh during a dry year.<sup>79</sup> 16

After reviewing the assertions presented by J3P, we are unable to find that J3P presented a showing of inefficiency or improvidence sufficient to raise a serious

<sup>71</sup>Exhibit H-5.
<sup>72</sup>Exhibit H-5 at 3-18.
<sup>73</sup>Exhibit H-5 at 18-39.
<sup>74</sup>Exhibit H-5 at 40.
<sup>75</sup>Exhibit H-47; H-62 at 1.
<sup>76</sup>Exhibit H-62 at 1.
<sup>77</sup>T-8 Hulbert Reply, CSH-4.
<sup>78</sup>T-8 Hulbert Reply at 3.
<sup>79</sup>Exhibit H-5 at 20.

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doubt as to AEL&P's prudence in developing Lake Dorothy. Further, AEL&P has made
a sufficient showing that its decision to construct Lake Dorothy was prudent.

Lake Dorothy Construction Management Prudence

The estimated construction cost for Lake Dorothy was \$53.5 million.<sup>80</sup>
The final cost was \$78.5 million.<sup>81</sup> J3P alleges that AEL&P's construction management
of Lake Dorothy was inconsistent with prudent utility practice, resulting in the final costs
exceeding the original budget by \$20 million.<sup>82</sup> The AG presented no argument or
evidence challenging the prudence of AEL&P's construction management.

Challenges to cost overruns incurred on a construction project are 9 reviewed based on a similar standard to the prudence standard articulated above. The 10 APUC addressed construction cost overruns in Order U-83-53(32).<sup>83</sup> In that decision 11 the APUC addressed alleged imprudent or unnecessary costs incurred on a 12 construction project. The alleged imprudent or unnecessary costs were tied to a design 13 error. The APUC stated that recovery for imprudent or unnecessary costs should be 14 disallowed.<sup>84</sup> However, they denied the prudence challenge and allowed the recovery 15 of costs based on a finding that the amount of the cost overrun attributable to the design 16 error was difficult to quantify and that the record was insufficient to support a finding of 17 imprudence.<sup>85</sup> The APUC's approach is consistent with the FERC prudence standard 18 19 identified above. Therefore, we conduct our review of the challenge to the prudence of AEL&P's construction management using the same standard articulated above. 20

<sup>80</sup>Exhibit H-5 at 30.

<sup>81</sup>T-4 Perkins Revised Reply at 5.

<sup>82</sup>T-13 Sutak Direct at 2.

<sup>83</sup>Order U-83-53(32), Order Deciding Substantive Revenue Requirement Issues and Requiring Permanent Rate and Applicable Refund Determinations, dated December 4, 1986 (Order U-83-53(32)), at 13-16.

<sup>84</sup>Order U-83-53(32) at 15.

<sup>85</sup>Order U-83-53(32) at 15-16.

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J3P asserts that the cost overrun for Lake Dorothy was due to imprudent 1 construction management practices.<sup>86</sup> J3P specifically alleges that cost overruns 2 resulted from AEL&P converting a low bid contract to a cost plus contract,<sup>87</sup> AEL&P's 3 failure to prorate the materials portion of equipment repairs,<sup>88</sup> AEL&P's use of a project 4 manager who was not a licensed engineer,<sup>89</sup> AEL&P's use of plans that had not been 5 stamped by a professional engineer,<sup>90</sup> AEL&P's payment for conjugal visits for the 6 benefit of contractor employees,<sup>91</sup> and AEL&P's failure to order steel for the project 7 before prices increased.<sup>92</sup> 8

AEL&P disputed these assertions with the testimony of Joseph Perkins.<sup>93</sup> 9 Perkins found that five specific components of the project accounted for \$23.8 million of 10 the \$25 million cost overrun.<sup>94</sup> With the exception of the change from gasketed steel 11 penstock to welded steel penstock and the increase in steel prices,<sup>95</sup> the site conditions 12 resulting in these cost overruns were identified as known risks in the pre-construction 13 consulting engineer's report.<sup>96</sup> Perkins testified that some of the design changes 14 related to changed site conditions were required by the FERC Board of Consultants and 15 the resulting additional costs could not be avoided.<sup>97</sup> Unanticipated increases in the 16

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<sup>86</sup>T-13 Sutak Direct at 9-12.

<sup>87</sup>T-13 Sutak Direct at 9-10.

- <sup>88</sup>T-13 Sutak Direct at 9.
- <sup>89</sup>T-13 Sutak Direct at 10.
- <sup>90</sup>T-13 Sutak Direct at 10-11.
- <sup>91</sup>T-13 SutakDirect at 11.
- <sup>92</sup>T-13 SutakDirect at 12.
- <sup>93</sup>T-4 Perkins Revised Reply, Tr. 451-479.
- <sup>94</sup>T-4 Perkins Revised Replyat 5.
- <sup>95</sup>T-4 Perkins Revised Reply at 7.
- <sup>96</sup>Exhibit H-5 at 29-30.
- <sup>97</sup>Tr. 475-476.

U-10-29(15) - (09/02/2011) Page 12 of 44 price of steel for transmission towers and the cost of transportation apparently caused
 some portion of the remaining cost overrun.<sup>98</sup>

Perkins testified that the lack of detailed field investigation of site 3 conditions before construction contributed to the low estimate, but did not significantly 4 contribute to increased construction costs.<sup>99</sup> Specifically, he testified that if a detailed 5 geotechnical investigation had been conducted, the project design and corresponding 6 cost estimate would have been revised to reflect substantially what was actually 7 constructed.<sup>100</sup> He also testified that conducting the additional geotechnical 8 investigation at Lake Dorothy would have been extremely expensive.<sup>101</sup> Perkins 9 concluded that, based upon the substantial geotechnical information available regarding 10 the Lake Dorothy project, it was prudent for AEL&P to proceed with project construction 11 without incurring the expense of conducting further geotechnical investigation.<sup>102</sup> He 12 also testified that AEL&P's conversion of fixed price contracts to cost-plus contracts was 13 prudent due to the changed conditions encountered during the construction of Lake 14 Dorothy,<sup>103</sup> 15

In response to J3P's specific allegations of mismanagement, Perkins testified that it was not unusual for competent project managers to not be professional engineers and offered his professional opinion that Lake Dorothy was a well managed project.<sup>104</sup> Perkins testified that it would be unusual for project owners such as AEL&P

- <sup>98</sup>Tr. 109-111.
- <sup>99</sup>T-4 Perkins Revised Reply at 9-11.
- <sup>100</sup>T-4 Perkins Revised Reply at 9.
- <sup>101</sup>T-4 Perkins Revised Reply at 9.
- <sup>102</sup>T-4 Perkins Revised Reply at 9-13.
- <sup>103</sup>T-4 Perkins Revised Reply at 17-20.
- <sup>104</sup>T-4 Perkins Revised Reply at 20-21; Tr. 478.

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to purchase raw steel in advance of a construction project.<sup>105</sup> Perkins also testified
AEL&P's use of unstamped plans did not cause any construction problems.<sup>106</sup> AEL&P
witness Willis testified that AEL&P did not pay for conjugal visits to contractor
employees.<sup>107</sup>

J3P extensively cross-examined AEL&P witnesses Willis and Perkins.<sup>108</sup>
After reviewing the assertions presented by J3P regarding AEL&P's construction
management and the responses of Willis and Perkins on cross-examination, we are
unable to find that J3P presented a showing of imprudence sufficient to raise a serious
doubt as to AEL&P's construction management. Further, AEL&P has made a sufficient
showing that its construction management practices were prudent.

11 Price Charged Greens Creek for Interruptible Energy

AEL&P entered into an interruptible power sale agreement with Greens Creek in October 2005.<sup>109</sup> We approved the Greens Creek PSA in October, 2005.<sup>110</sup> J3P asserts that the Period 1 rate discount provided to Greens Creek pursuant to the Greens Creek PSA was unreasonably preferential to Greens Creek.<sup>111</sup> The Period I rates were implemented when interruptible energy sales to Greens Creek began in September 2006<sup>112</sup> and expired pursuant to the terms of the Greens Creek PSA two

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<sup>105</sup>T-4 Perkins Revised Reply at 21-22.

<sup>106</sup>T-4 Perkins Revised Reply at 23-24.

<sup>107</sup>T-3 Willis Revised Reply at 20.

<sup>108</sup>Tr. at 325-437 (Willis), 451-468 (Perkins).

<sup>109</sup>T-11 Fairchild Direct, JKF-11, Agreement for the Sale and Purchase of Interruptible Energy Between Alaska Electric Light and Power Company and Kennecott Greens Creek Mining Company, effective October 3, 2005 (Greens Creek PSA).

<sup>110</sup>Letter Order No. L0500581, dated October 4, 2005 (L0500581), in TA334-1.

<sup>111</sup>T-13 Sutak Direct at 7-8; Greens Creek PSA at 5, 10, Exhibit D.

<sup>112</sup>TA347-1, Exhibit 3.

U-10-29(15) - (09/02/2011) Page 14 of 44 months later.<sup>113</sup> Pursuant to the prohibition on retroactive rate making, there appears to
be no action that we could take regarding the Period I rates charged Greens Creek,
even if we agreed with J3P's assertion.<sup>114</sup>

J3P also asserts that the price charged under the Greens Creek PSA for 4 Period 3 interruptible energy is unreasonably low.<sup>115</sup> The AG evaluated the price for 5 interruptible power charged by AEL&P to Greens Creek and compared it with the 6 interruptible rate offered by another electric utility, Municipality of Anchorage d/b/a 7 Municipal Light & Power (ML&P).<sup>116</sup> According to the AG, both utilities offer interruptible 8 service at a discount from their rate for firm service. The AG determined that AEL&P 9 offers less of a discount for interruptible service, on a percentage basis, than ML&P. 10 Therefore, the AG determined that the Period 3 rate charged to Greens Creek is 11 reasonable. 12

Based upon our examination of the Greens Creek PSA, we find that the cost of Lake Dorothy energy was intended to serve as a proxy price for all Period 3 energy sold to Greens Creek.<sup>117</sup> This proxy price was capped at \$0.10/kWh for the first seven years of Lake Dorothy commercial operation.<sup>118</sup> For interruptible energy, our standard has been that prices must cover all incremental costs of generating the energy, plus a margin.<sup>119</sup> The estimated total annual cost of Lake Dorothy included

<sup>113</sup>T-3 Willis Revised Reply at 9.

<sup>114</sup>*Matanuska Electric Ass'n, Inc. v. Chugach Electric Ass'n, Inc.*, 53 P.3d 578, 583-587 (Alaska 2002).

<sup>115</sup>T-13 Sutak Direct at 7-8; Greens Creek PSA at 5, 11, Exhibit D.

<sup>116</sup>T-11 Fairchild Direct at 41-42.

<sup>117</sup>Greens Creek PSA at 37-38

<sup>118</sup>Greens Creek PSA at 34-35.

<sup>119</sup>See Order U-93-94(2), Order Approving Contract and Closing Docket, dated
 May 9, 1994 (Order U-93-94(2)), Appendix at 10 (discussing typical pricing for interruptible energy contracts).

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approximately \$400,000 in operating and maintenance costs<sup>120</sup> that do not appear fixed,
and thus could be considered variable.<sup>121</sup> At a projected average annual output of
74,500,000 kWh,<sup>122</sup> Lake Dorothy variable costs would be less than \$0.01/kWh.<sup>123</sup> The
\$0.10/kWh Greens Creek is paying AEL&P for interruptible energy substantially
exceeds Lake Dorothy average variable costs. Therefore, we find that the Period 3 rate
AEL&P charges Greens Creek for interruptible power is reasonable.

7 || Lake Dorothy Allowance For Funds Used During Construction (AFUDC)

The reply testimony of AEL&P witness Hulbert summarizes the forty-year 8 history of the regulatory use of an "Allowance For Funds Used During Construction" 9 (AFUDC).<sup>124</sup> AFUDC came into use in jurisdictions such as ours, which do not permit a 10 utility engaged in a multi-year construction project to include those costs in rates 11 incrementally each year. Instead, those costs are reflected in rates after the completion 12 of the project. AFUDC was therefore developed as an annual estimate of the utility's 13 finance costs related to an ongoing construction project.<sup>125</sup> Upon project completion 14 those annual AFUDC amounts are added to the other costs of the project for inclusion 15 in the utility's rate base and then recovered through rates.<sup>126</sup> 16

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<sup>120</sup>Exhibit H-5 at 30-31 (\$374,063 in 2009 with 3 percent inflation factor).

<sup>121</sup>See Order U-93-94(2), Appendix at 10.

<sup>122</sup>Exhibit H-5 at 20 (expressed as 74.5 gWh).

 $^{123}$ \$400,000 per year divided by 74,500,000 kWh per year = \$0.0054/kwh.

<sup>124</sup>T-8 (Hulbert Reply) at 39 – 43.

<sup>125</sup>Construction of Phase I of the Lake Dorothy Hydro Project began in May 2006 and the project was not declared operational until August 2009. T-3 (Willis Reply), KSW-5 at 2.

<sup>126</sup>When utilities are not allowed to earn a return to cover their construction financing costs during the construction period, they are allowed to capitalize the financing costs for future recovery through an allowance for funds used during construction (AFUDC)." T-8 (Hulbert Reply) at 41-42 *citing* Hahne, Accounting for Public Utilities at 4.04[4].

U-10-29(15) - (09/02/2011) Page 16 of 44 Our regulations provide for the calculation of AFUDC by reference to the
rules of the Federal Energy Regulatory Commission (FERC). Specifically, our
regulations refer to the FERC uniform system of accounts in effect as of January 1,
1982.<sup>127</sup> The AFUDC-relevant part of that uniform system of accounts is found in 18
C.F.R. Part 101, Electric Plant Instructions. Paragraph 3 of the FERC uniform system
of accounts states in part:

(17) Allowance for funds used during construction (Major and Nonmajor Utilities) includes the net cost for the period of construction of borrowed funds used for construction purposes and a reasonable rate on other funds when so used, *not to exceed*, without prior approval of the Commission, allowances computed in accordance with the formula prescribed in paragraph (a) of this subparagraph. No allowance for funds used during construction charges shall be included in these accounts upon expenditures for construction projects which have been abandoned.<sup>128</sup> (Emphasis added.)

Subparagraph (a) of Paragraph 3(17) sets out the general formula for calculating AFUDC. Subparagraph (b) of Paragraph 3(17) requires annual updating. The FERC adopted Order No. 561 in 1977, further explaining its interpretation of this regulation.<sup>129</sup>

AEL&P's proposed 2009 test year revenue requirement included a proposed return of \$11,685,832 on an average rate base of \$112,471,918.<sup>130</sup> This rate base included a total AFUDC of \$9,365,205 for the Lake Dorothy Hydro project.<sup>131</sup> Hulbert testified AEL&P precisely followed the prescribed formula for calculating AFUDC. She believed the formula is intended to be a practical, standardized methodology for calculating AFUDC. Each of AEL&P's annual AFUDC calculations was

<sup>127</sup>3 AAC 48.277(a)(10).

<sup>128</sup>18 C.F.R. Part 101, Electric Plant Instructions, at ¶3(17).

<sup>129</sup>Exhibit H-63.

<sup>130</sup>RRS, Schedule 5.

<sup>131</sup>T-11 (Fairchild Direct) at 26, JKF-6, JKF-9.

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reviewed by accounting firm KPMG and then included in AEL&P's audited financial
 statements.<sup>132</sup>

Fairchild acknowledged that Paragraph 3(17) applied to AEL&P's AFUDC 3 calculations and did not assert that AEL&P had incorrectly calculated the AFUDC for the 4 Lake Dorothy hydro project when using the formula under the FERC uniform system of 5 accounts.<sup>133</sup> Nonetheless, the AG disputed the manner in which AEL&P had calculated 6 AFUDC. The AG asserted that the "not to exceed" language in the instruction guoted 7 above indicates we have discretion to reduce the amount of AFUDC (for a specific 8 project) below that which would otherwise be calculated using the general formula of the 9 FERC uniform system of accounts.<sup>134</sup> The AG further asserted that use of our 10 discretion would be appropriate here because certain bond funds used to finance the 11 project were readily distinguishable. Using the general formula under the FERC uniform 12 system of accounts to calculate the AFUDC amounts, the AG argued, overstated the 13 Lake Dorothy construction financing costs actually incurred.<sup>135</sup> 14

Fairchild therefore recommended an alternative calculation methodology
that would reduce the total AFUDC for the Lake Dorothy hydro project to \$5,850,106.<sup>136</sup>
The AG proposed that the AFUDC should be re-calculated using first the amount and
lower interest rate<sup>137</sup> of the AIDEA conduit bonds<sup>138</sup> AEL&P had used to partially
finance the project. Only after project spending exceeded the full amount of those funds

<sup>132</sup>T-8 (Hulbert Reply) at 39 – 40.

<sup>133</sup>T-11 (Fairchild) at 27-28, JKF-7.

<sup>134</sup>T-11 (Fairchild) at 27-29.

<sup>135</sup>T-11 (Fairchild) at 28.

<sup>136</sup>T-11 (Fairchild) at 28-29, JKF-9.

<sup>137</sup>\$46,655,000 at 5.05 percent interest rate. T-11 (Fairchild Direct) at 28.

<sup>138</sup>AIDEA agreed to lend AEL&P up to \$60 million for construction of Lake Dorothy by issuing tax exempt conduit revenue bonds. Exhibit H-36 at 2-3, Exhibit H-37 at 2-3.

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should subsequent AFUDC calculations have been calculated taking into account the
 higher costs<sup>139</sup> of other sources of funds used including AEL&P's equity
 contributions.<sup>140</sup>

Hulbert testified that FERC Order No. 561<sup>141</sup> provides the FERC-approved 4 guidance for calculating AFUDC under the uniform system of accounts.<sup>142</sup> Hulbert also 5 testified that as recently as 2007 the FERC has rejected requests (similar to the AG's 6 current proposal) seeking to calculate AFUDC based upon the actual finance costs of 7 the specific funds used to construct a particular project rather than using the general 8 formula under FERC Order No. 561.<sup>143</sup> Hulbert also testified that AEL&P's calculations 9 actually understated the AFUDC slightly since AEL&P had used the correct average 10 interest rate paid on the AIDEA bonds (5.046 percent) but failed to include an 11 amortization of the issuance premiums also paid on the AIDEA bonds.<sup>144</sup> 12

Through our regulations we have adopted a FERC methodology for
calculating AFUDC prescribing the use of a specific formula. It is undisputed that the
FERC instructions describe the formula AFUDC amount as a ceiling that a utility may
not exceed "without prior approval" of the FERC. The implications of that prior approval
requirement need to be addressed before any consideration of the AG's argument that

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<sup>139</sup>It is undisputed that the general AFUDC formula uses the average cost of all debt and the last authorized return on equity. It was also undisputed that in AEL&P's case average cost of debt was 5.30 percent and return on equity was 13 percent.

<sup>140</sup>T-11 (Fairchild) at 28; Tr. 287-288.

- <sup>141</sup>Exhibit H-63 (copy of FERC Order No. 561).
- <sup>142</sup>Tr. 716-718.
- <sup>143</sup>Tr. 717-723.
- <sup>144</sup>Tr. 641-644, 734-735.

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the discretion to permit AFUDC exceeding the formula<sup>145</sup> amount implies the discretion 1 2 to order an amount less than that calculated under the formula.

As previously noted AFUDC is calculated annually as an estimate of the 3 costs incurred to finance a multi-year construction project. It is necessarily calculated 4 5 by the utility outside of the rate setting context in jurisdictions such as ours that do not 6 permit rate recovery of costs before a project is completed and becomes "used and useful" in providing utility service. Having a "pre-approved" method of calculation that a 7 utility is generally bound to use therefore makes sense. Because the calculated 8 AFUDC amounts need to be reviewed and included in annual audited financial 9 statements, it also makes sense that any departure from that generally applicable "pre-10 approved" method of calculation would need to be approved in advance by the 11 regulator. Otherwise the utility, its auditor, and investors relying upon those audited 12 financial statements could not be certain that the calculations were acceptable to the 13 regulator rather than simply "arithmetically correct." 14

The AG's current proposal raises similar concerns in reverse. Accepting 15 16 the proposition that we may recalculate AFUDC amounts years later, that possibility 17 would unavoidably reduce the audit process to a math review and introduce an additional degree of regulatory uncertainty. While we received no evidence on the 18 19 possibility that the utility's financial statements might need to be re-stated, the imposition of additional regulatory uncertainty in the absence of compelling reasons is 20 not a result we prefer. The AG did not comment upon this aspect of the proposal or 22 why it would be preferable to requiring both the utility (if it seeks a higher than standard

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<sup>145</sup>Since we have adopted their rule the FERC's interpretations of it are certainly worthy of our consideration though we might not necessarily consider ourselves bound to reach an identical result. Consequently, we appreciated AEL&P's testimony and submission of orders demonstrating the FERC's apparent unwillingness to grant requests for approval of AFUDC amounts exceeding those calculated using the formula.

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AFUDC amount) and any challenger such as the AG (if it seeks a lower than standard
AFUDC amount) to obtain prior approval. For this reason we decline to order
recalculation of the otherwise correct AFUDC amounts and reject the AG's proposed
AFUDC adjustment to the 2009 revenue requirement study filed by AEL&P. We will
include the entire AFUDC amount calculated by AEL&P in its current rate base.<sup>146</sup>

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#### Adjustments for Addition of Lake Dorothy

AEL&P asserts that Lake Dorothy went into commercial service on August
 31, 2009.<sup>147</sup> AEL&P is requesting a rate increase based upon its proposed 2009 test
 year revenue requirement of \$43,135,748.<sup>148</sup> This amount includes proposed
 normalizing adjustments proposed by AEL&P to reflect a full year of Lake Dorothy
 operations.<sup>149</sup> This also includes an AEL&P proposed normalizing adjustment to rate
 base so as to account for Lake Dorothy being classified as plant in service for the entire
 year.<sup>150</sup> AEL&P asserted that these normalization adjustments were justified under the

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<sup>146</sup>Even if we were to review the AFUDC calculations now we would have doubts about the reasonability of the AG's proposal. AEL&P made a \$6,771,451 equity investment in the Lake Dorothy project as a pre-condition for obtaining the AIDEA funds. Tr. 178-179; RRS at 3. It had also accumulated an additional \$9 million in preloan cash to spend on the project in addition to its planned expenditure of \$8 million from retained earnings. Exhibit H-36 at 3. The AG's proposed Lake Dorothy AFUDC calculation methodology would seemingly prevent AEL&P from earning a reasonable return on its equity investment in Lake Dorothy during the construction period.

<sup>147</sup>T-5 McLeod Direct at 10; T-7 Hulbert Direct at 7-8; Tr. 55, 91.

<sup>148</sup>RRS at 8.

<sup>149</sup>See T-7 Hulbert Direct at 7-8.

<sup>150</sup>RRS at 21 (proposing \$41,594,583 increase to 13 month average plant in service).

U-10-29(15) - (09/02/2011) Page 21 of 44 Commission's decisions in Orders U-01-108(26)<sup>151</sup> and U-08-157(1),<sup>152</sup> because Lake
Dorothy would be in operation during the time the rates established in this docket will be
in effect.<sup>153</sup>

AEL&P witness Willis testified that energy production from Lake Dorothy
was temporarily halted on March 8, 2010, so as to drain Bart Lake and resolve a
seepage problem.<sup>154</sup> Energy production was expected to resume on or about July 20,
2010.<sup>155</sup> We authorized an interim and refundable rate increase for AEL&P, effective
July 16, 2010.<sup>156</sup>

9 The AG opposed the Lake Dorothy normalization adjustments, primarily
10 based on an asserted lack of synchronization between these adjustments and the
11 remainder of AEL&P's revenue requirement.<sup>157</sup> In arguing against AEL&P's Lake
12 Dorothy normalization adjustments, the AG distinguished Lake Dorothy from the plant
13 additions at issue in Orders U-01-108(26) and U-08-157(10).<sup>158</sup> The AG particularly

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<sup>151</sup>Order U-01-108(26), Order Determining Revenue Requirement and Rate Design Issues and Requiring Filings, dated January 31, 2003 (Order U-01-108(26)).

<sup>152</sup>Order U-08-157(1)/U-08-158(1), Order Consolidating Dockets, Suspending Tariff Filings, Granting Interim and Refundable Rates, Approving Tariff Sheets, Establishing Interest Rate on Refunds, Requiring Filing, Inviting Participation by the Attorney General, and Intervention, Addressing Timeline for Decision, Scheduling Prehearing Conference, Designating Commission Panel, and Appointing Administrative Law Judge, dated December 29, 2008. Based upon the context in which this citation is placed, it appears that AEL&P meant to cite to Order U-08-157(10)/U-08-158(10), Order Resolving Revenue Requirement Issues, dated February 11, 2010, (Order U-08-157(10)) at 26-28.

<sup>153</sup>T-7 Hulbert Direct at 8.

<sup>154</sup>T-4 Willis Revised Reply at 12; See Tr. 91-97.

<sup>155</sup>Tr. 97-98.

<sup>156</sup>Order U-10-29(2) at 11.

<sup>157</sup>See T-11 Fairchild Direct at 28-32.

<sup>158</sup>T-11 Fairchild Direct at 30-31.

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Regulatory Commission of Alaska 701 West Eighth Avenue, Suite 300 Anchorage, Alaska 99501 (907) 276-6222; TTY (907) 276-4533 found significant that Lake Dorothy had been taken out of service from March to July of
2010.<sup>159</sup> The AG also objected on the ground that AEL&P had not removed from its
rate base any plant that had been retired during or after the test year.<sup>160</sup> The AG
recommended elimination of the proposed Lake Dorothy normalizations, reducing
AEL&P's revenue requirement by \$5,916,589 and projected revenue by \$3,191,898.<sup>161</sup>

AEL&P disputed the AG's interpretation of Orders U-01-108(26) and
U-08-157(10).<sup>162</sup> AEL&P witness Willis testified that even with Lake Dorothy power
production being off-line for the March to July period, total production for the first twelvemonths of operation was 95 percent of the predicted annual output.<sup>163</sup> AEL&P and the
AG subsequently stipulated to inclusion of AEL&P's proposed Lake Dorothy operator
expense normalization in AEL&P's revenue requirement.<sup>164</sup>

A revenue requirement is supposed to include test year operating revenues and expenses, adjusted to represent a normalized test year.<sup>165</sup> The term "normalized test-year" is defined as: "a historical test-year adjusted to reflect the effect of known and measureable changes and to delete or average the effect of unusual or nonrecurring events, for the purpose of determining a test year which is representative of normal operations in the immediate future."<sup>166</sup>

19 <sup>159</sup>T-11 Fairchild direct at 29-31. 20 <sup>160</sup>T-11 Fairchild Direct at 30, 32. 21 <sup>161</sup>T-11 Fairchild Direct at 32, JKF-2. 22 <sup>162</sup>T-8 Hulbert Reply at 19-23. 23 <sup>163</sup>T-3 Willis Revised Reply at 13. 24 <sup>164</sup>Stipulation at 3. <sup>165</sup>3 AAC 48.275(a)(5), (6), (7), (8). 25 <sup>166</sup>3 AAC 48.820(42). 26

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Normalization adjustments have been made to utility revenue
requirements in Alaska since at least 1967.<sup>167</sup> Our predecessor, the APUC found in
1980 that:

The Commission may not, however, confine its analysis simply to the results for 1979. An essential element in establishing permanent rates is the determination of appropriate "normalization adjustments" for "known and measurable changes" which should be made to the results of operations for the test year selected by the Commission, *See, e.g., Re United Gas Pipeline Company*, 54 PUR 3d 285, 291 (FPC 1964).<sup>168</sup>

Regarding new plant in service, ML&P conducted pre-commercial 8 operation testing of its new waste steam generator during the 1983 coincident peak gas 9 usage period on the ENSTAR Natural Gas Company, a Division of SEMCO Energy, Inc. 10 (ENSTAR) system, substantially skewing ENSTAR's cost-of-service study.<sup>169</sup> ENSTAR 11 proposed treating the steam unit as if it were not functional during the test year.<sup>170</sup> The 12 APUC found this proposal to be unreasonable, but also found treating the steam unit as 13 if it had been functional all year was unreasonable.<sup>171</sup> Based upon the evidence 14 available, the APUC ordered a normalization adjustment to ENSTAR's load data to 15 reflect the steam unit being functional 50 percent of the year.<sup>172</sup> 16

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<sup>167</sup>Order U-66-8(2), Order Adopting in Part and Modifying in Part the Decision of the Hearing Officer, dated June 23, 1967, at 3-7.

<sup>168</sup>Order U-80-27(1), Order Affirming Bench Order, dated May 9, 1980, at 8.

<sup>169</sup>Order U-83-38(6), Order Approving Tariff Revision, in Part; Requiring Revisions of Cost of Service Study and Rate Redesign; Approving Sequence of Interruptions; and Establishing Methodology for Allocating Costs Resulting from Interruptions of Service, dated February 14, 1984 (Order U-83-38(6)), at 7-8.

<sup>170</sup>See Order U-83-38(6) at 8-9.

<sup>171</sup>Order U-83-38(6) at 9.

<sup>172</sup>Order U-83-38(6) at 9-10.

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In considering normalization adjustments for plant brought into service 1 during or after the revenue requirement test year, we have been concerned about 2 ensuring that adjustments reflecting both the costs and the benefits of the new plant are 3 accounted for, i.e., that the adjustments are synchronized. Synchronization has been 4 defined as: 5 6 The proper matching or balancing of operating expenses (including depreciation and taxes), rate base, and revenue (in this case, revenue is 7 expressed through demand units). The expectation is that the relationships 8 from the test period will hold reasonably constant during the period that rates will be in effect. Any change in those relationships could result in the under-9 recovery or over-recovery of an approved revenue requirement. For example, during calendar year 2003 Golden Valley Electric 10 Association, Inc. (GVEA) completed construction of the Northern Intertie Transmission 11 Project from Healy to Fairbanks, and the Battery Energy Storage System (BESS).<sup>174</sup> 12 GVEA filed a revenue requirement study based on a 2003 calendar year test year,<sup>175</sup> 13 and requested a normalization adjustment to annualize depreciation expense for this 14 new plant.176 15 16 We rejected GVEA's requested normalization adjustment because it was not synchronized with other adjustments that would have been required for the revenue 17 requirement to truly reflect full year operation of the plant.<sup>177</sup> Specifically. GVEA's 18 19 <sup>173</sup>Order U-91-32(1), Order Opening Dockets; Affirming Hearing and Filing 20 Schedules; and Appointing Hearing Officer, dated June 24, 1991, Appendix, at 14. 21 <sup>174</sup>See Order U-04-33(10), Order Granting GVEA Authority to Implement Simplified Rate Filing Procedures; Granting GVEA's Request to Adjust Rates, in Part; 22 Requiring Filing; and Affirming Electronic Rulings, dated May 31, 2005 (Order U-04-23 33(10)), at 6-7. <sup>175</sup>See Order U-04-33(10) at 5. 24 <sup>176</sup>Order U-04-33(10) at 6-7. 25 <sup>177</sup>Order U-04-33(10) at 7. 26 U-10-29(15) - (09/02/2011) Page 25 of 44

Regulatory Commission of Alaska 701 West Eighth Avenue, Suite 300 Anchorage, Alaska 99501 (907) 276-6222; TTY (907) 276-4533 proposed adjustment was rejected because it was not synchronized with adjustments
for the operations and maintenance expense of the new plant and with adjustments
reflecting the benefits of this new plant.<sup>178</sup> A significant reason for rejecting GVEA's
proposed depreciation expense normalization adjustment was that GVEA was in the
SRF program, and would be filing a new simplified revenue requirement in just sixmonths that could be based upon actual costs and benefits related to this new plant.<sup>179</sup>

However, in Order U-01-108(26), to which both AEL&P and the AG cited, 7 we allowed normalization adjustments to Chugach's 2000 test year revenue 8 requirement for the Beluga 6 and 7 repowering projects that were not completed until 9 October, 2001.<sup>180</sup> In doing so, we noted that those projects would be operational during 10 the time rates established in that proceeding would be in effect and would result in 11 improved fuel efficiency that would benefit consumers immediately through Chugach's 12 cost of power adjustment (COPA) mechanism.<sup>181</sup> We also noted that the Beluga 6 and 13 7 normalization adjustments were "exhaustively" reviewed during the rate case 14 litigation,<sup>182</sup> and concluded: 15

> To reject these adjustments exclusively because they are out-of-period adjustments now would require Chugach to file for rate relief immediately. A lengthy and costly rate proceeding would surely ensue, but the evidentiary record would likely mirror the one just developed in this proceeding.

<sup>178</sup>Order U-04-33(10) at 7 (Although not specifically identified in the Commission's decision, the Northern Intertie relieved a transmission constraint between Healy and Fairbanks, allowing GVEA to purchase an additional 25 MW of lower cost power from Chugach Electric Association, Inc. (Chugach) or ML&P. BESS allowed GVEA to reduce its spinning reserve requirements by 27 MW. In combination, these two plant additions should have substantially decreased GVEA's fuel cost, but increased purchase power expense, operations expense, and maintenance expense.).

<sup>179</sup>Order U-04-33(10) at 6-7.

<sup>180</sup>Order U-01-108(26) at 59-64.

<sup>181</sup>Order U-01-108(26) at 60.

<sup>182</sup>Order U-01-108(26) at 63-64.

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We must balance the difficulty in synchronizing the revenue requirement for Chugach's adjustments for activity beyond the test period with the costs associated (and ultimately borne by ratepayers) with a new revenue requirement filing. In this case, the scales tip in favor of allowing Chugach the out-of-period adjustments.

In Order U-08-157(10), to which both AEL&P and the AG also cite, we 5 6 allowed AWWU to include a normalization adjustment to its 2007 test year revenue requirement based upon new plant placed into service in October 2007.<sup>184</sup> That 7 normalization was allowed based upon a finding that the plant costs were known and 8 measureable, the plant would be in service during the period of time rates determined in 9 that proceeding would be in effect, and there were no synchronization problems with the 10 benefits of the plant.<sup>185</sup> 11

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Lake Dorothy apparently went into permanent service on or about July 20, 12 2010, and the interim rate increase authorized in this proceeding could have gone into effect no earlier than July 16, 2010. Thus, for all practical purposes, Lake Dorothy will be in service during the period of time rates established in this proceeding have been or 16 will be in effect. The capital costs of Lake Dorothy are known and measureable and were litigated extensively in this proceeding. The primary operation cost related to Lake 17 Dorothy appears to be labor cost related to the project operator, and the AG has already 18 19 stipulated to include an annualized normalization adjustment to AEL&P's revenue requirement for this expense. AEL&P is proposing a normalization adjustment to 20 21 revenue reflecting a full year's worth of anticipated revenue from sales of Lake Dorothy energy to Greens Creek. The other anticipated benefit of Lake Dorothy would be a 22

> <sup>183</sup>Order U-01-108(26) at 64. <sup>184</sup>Order U-08-157(10) at 4, 26-28. <sup>185</sup>Order U-08-157(10) at 28.

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**Regulatory Commission of Alaska** 701 West Eighth Avenue, Suite 300 276-4533 99501 TTY (907) Alaska Anchorage, 276-6222; (207) reduction in diesel fuel consumption, which will be returned to consumers through
 AEL&P's COPA mechanism.

There appears to be no material synchronization problem with accepting 3 AEL&P's proposed Lake Dorothy normalization adjustments in this docket. If those 4 adjustments are rejected for being out of time, AEL&P would probably immediately file a 5 6 new revenue requirement study given the magnitude of the proposed Lake Dorothy adjustments compared to AEL&P's revenue requirement. The public interest would not 7 be served if we were to force AEL&P to immediately file a new rate case. For the 8 reasons stated in Order U-01-108(26) quoted above, we accept AEL&P's proposed 9 Lake Dorothy normalization adjustments. This produces a rate base of \$110,661,653 10 for AEL&P.186 11

12 Cost of Power Adjustment (COPA)

AEL&P projects selling an average of 66,525,705 kWh of interruptible 13 power per year to Hecla Greens Creek Mining Co. (Greens Creek) pursuant to the 14 Greens Creek Power Sales Agreement (PSA) based on Greens Creek average 15 consumption over the past three years.<sup>187</sup> The current price Greens Creek pays for 16 interruptible power under this special contract is \$0.10 per kWh plus a \$99.24 per month 17 customer charge.<sup>188</sup> As part of its revenue requirement proposal under consideration 18 19 here AEL&P has reduced the revenues to be paid by its firm customers by including in base rate calculations an estimated annual revenue from interruptible power sales to 20

<sup>187</sup>T-7 Hulbert Direct at 5.

<sup>188</sup>T-7 Hulbert Direct at 5.

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<sup>&</sup>lt;sup>186</sup>This figure is arrived by reducing the \$112,471,918 pro forma rate base with Lake Dorothy adjustment (H-20, Revenue Requirement Study at 47) by the stipulated rate base adjustment of \$1,810,265 (Stipulation at 3-4).

Greens Creek in the amount of \$6,653,761, calculated as [(66,525,705 kWh X \$0.10 per
 kWh) + (\$99.24 per month X 12 months)].<sup>189</sup>

However, AEL&P also seeks to protect itself from downward variations in 3 sales to Greens Creek and provide its customers with the benefit of upward variations in 4 sales to Greens Creek.<sup>190</sup> Specifically, AEL&P proposes to adjust its COPA balancing 5 account on a monthly basis by the amount that revenue from sales to Greens Creek are 6 greater or less than \$554,480 for that month.<sup>191</sup> This monthly amount is calculated by 7 dividing \$6,653,761 by 12.<sup>192</sup> The details of AEL&P's proposal are set forth in the 8 proposed revised Tariff Sheet Nos. 168, 169, 170, and 171, attached to TA381-1 under 9 the heading "Permanent Rates". 10

The AG has agreed with this proposed treatment of Greens Creek sales
 revenues.<sup>193</sup> J3P disagrees with this proposal claiming it unreasonably shifts the risk of
 downward sales variations from AEL&P's owners to AEL&P's firm customers.<sup>194</sup>

The Greens Creek PSA was submitted for our approval in 2005 as TA334-1. It was approved in letter order L0500581. The rate charged for energy delivered to Greens Creek after the Lake Dorothy Project began commercial operation was set at the fully allocated cost of Lake Dorothy Project energy, or \$0.10/kWh, whichever was lower.<sup>195</sup> In 2005, AEL&P estimated average sales to Greens Creek would be 60,000,000 kWh/year.<sup>196</sup>

<sup>189</sup>T-7 Hulbert Direct at 5.
<sup>190</sup>T-7 Hulbert Direct at 5-6.
<sup>191</sup>T-7 Hulbert Direct at 6.
<sup>192</sup>See T-7 Hulbert Direct at 6.
<sup>193</sup>T-11 Fairchild Direct at 42-43.
<sup>194</sup>T-13 Sutak Direct at 12-13.
<sup>195</sup>Greens Creek PSA at 34-35.
<sup>196</sup>TA334-1, filed July 5, 2005, at 4.

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Pursuant to AEL&P's proposal to adjust its COPA balancing account on a
 monthly basis, firm ratepayers will make up the difference in months when sales to
 Greens Creek do not equal the estimated \$554,480. Firm ratepayers will enjoy a
 reduction in rates for months when sales to Greens Creek exceed \$554,480.

If we were to reject AEL&P's proposed use of the COPA mechanism, we
would also have to remove the normalized Greens Creek revenue from AEL&P's
proposed base rates.<sup>197</sup> Removing this normalized revenue would effectively increase
the base rates that would be charged to AEL&P's firm customers by increasing
AEL&P's revenue deficiency.<sup>198</sup> This increase in base rates would be partially offset if
we continued to include a Greens Creek revenue credit in AEL&P's COPA mechanism.

We find that, on an annual basis, AEL&P's proposal results in 100 percent
of the Greens Creek revenue being allocated to the benefit of firm customers, and that
there is no net shifting of risks. Therefore, we approve inclusion of the Greens Creek
revenue element proposed by AEL&P in AEL&P's COPA mechanism.

# 15 Return on Equity

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AEL&P requested a return on rate base of 10.39 percent.<sup>199</sup> The requested return was based on a capital structure containing 46.2 percent debt and 53.8 percent equity (AEL&P's actual capital structure) and on AEL&P's actual average cost of debt of 5.3 percent. AEL&P proposed a return on equity (ROE) of 14.75 percent based on the testimony of its ROE expert, Zepp.<sup>200</sup> J3P did not address cost of capital issues in its testimony.<sup>201</sup> The AG accepted AEL&P's capital structure and 5.3 percent

<sup>197</sup>Order U-91-32(1), Appendix at 14.

<sup>198</sup>H-20, Revenue Requirement Study, Schedules 5, 6.
<sup>199</sup>RRS at 8, Schedule 5, Line 5.
<sup>200</sup>RRS at 53, Schedule 12.

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<sup>&</sup>lt;sup>201</sup>T-13 (Sutak).

debt cost as appropriate for setting rates in this proceeding.<sup>202</sup> However, the AG
disagreed with AEL&P's requested 14.75 percent ROE and proposed an 11 percent
ROE based on the testimony of its expert, Parcell.<sup>203</sup>

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## Expert Testimony

To determine cost of equity, Zepp used a proxy group of 31 electric 5 utilities. His proxy group is comprised of all utilities listed by AUS Utility Reports in the 6 categories "Electric Companies" and "Combination Electric and Gas Companies" that 7 pay dividends, have investment grade bonds, have at least 51 percent of revenues 8 derived from regulated electric revenues, are not transmission and distribution 9 companies, and have complete and reliable data.<sup>204</sup> The average market capitalization 10 of Zepp's proxy group is \$8.5 billion, with the smallest having a capitalization of \$700 11 million and the largest \$25 billion.<sup>205</sup> 12

Parcell chose a proxy group consisting of five publicly-traded electric
utilities that have market capitalizations of less than \$1 billion and that are engaged in
operations similar to AEL&P. Three of the utilities in Parcell's proxy group are part of
Zepp's proxy group; two are not.<sup>206</sup> While Parcell's group is comprised of smaller
utilities than the average of the Zepp group, the smallest utility in Parcell's sample is still
10 times larger than AEL&P, based on revenues.<sup>207</sup> Parcell performed his ROE
analyses on Zepp's proxy group as well as on his own.<sup>208</sup>

<sup>202</sup>T-12 (Parcell) at 6-7.

- <sup>203</sup>T-12 (Parcell) at 36-54.
- <sup>204</sup>T-9 (Zepp Direct) at 10-11, TMZ-2 at 1.
- <sup>205</sup>T-9 (Zepp Direct), TMZ-2 at 1.
- <sup>206</sup>T-12 (Parcell), DCP-2, Schedule 6 at 1.
- <sup>207</sup>Tr. 900 (Parcell).

# <sup>208</sup>T-12 (Parcell) at 8.

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Zepp's recommended ROE of 14.75 percent was based on his estimate of 1 the cost of equity for electric utilities in his proxy group plus a premium to recognize 2 increased risks faced by AEL&P.<sup>209</sup> Zepp found that the cost of equity for his group of 3 publicly-traded electric utilities ranged from 10.8 percent to 11.9 percent based on three 4 discounted cash flow (DCF) analyses and four risk premium analyses, including a 5 capital asset pricing model (CAPM). The results of Zepp's studies were: 6

Constant Growth DCF Method	11.4%
FERC DCF Method	11.4%
Three-Stage DCF Method	11.1%
First Risk Premium Method	
Five-Year Average	11.5%
Ten-Year Average	11.1%
Second Risk Premium Method	
Original	11.8%
Updated	10.8%
Third Risk Premium Method	11.0%
САРМ	11.0%

Zepp testified that the average result of his DCF analyses, 11.3 percent, provides a reasonable top to his recommended range of equity cost for publicly-traded electric utilities while the average result of his risk premium estimates, 11.2 percent, was a reasonable bottom to the range.<sup>210</sup>

18 Zepp determined that AEL&P's cost of equity was at least 350 basis points above the cost of common equity of a typical publicly-traded electric utility. He recommended that an average base cost of equity of 11.25 percent (the average of his average DCF estimates and his average risk premium and CAPM estimates) be increased by 3.5 percent to 14.75 percent to recognize AEL&P's greater risks.<sup>211</sup>

<sup>209</sup>T-9 (Zepp Direct) at 4.

<sup>210</sup>T-9 (Zepp Direct) at 8-9, 27, 30-31; TMZ-2 at 7, 9-10, 12-14. <sup>211</sup>T-9 (Zepp Direct) at 21-22.

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Zepp testified that AEL&P was riskier than the proxy group companies, in 1 part because of its small size. He observed that AEL&P is smaller than any of the 2 utilities in his proxy group and is less than 1 percent as large as the average of the 3 group.<sup>212</sup> He further asserted that AEL&P was more risky than proxy utilities because of 4 its take-or-pay contract for Snettisham power, its lack of interconnection with other 5 electric utilities, its requirement for significant amounts of new capital, its liquidity risk, its 6 limited financing flexibility, its exposure to losses due to avalanches and mud slides, 7 and a perception by investors that Alaska utilities have greater business risks.<sup>213</sup> 8

The AG, through Parcell, disputed Zepp's analysis. Parcell believed 9 Zepp's explicit risk adjustment of 350 basis points was unwarranted. Further, he 10 testified that each of Zepp's DCF and risk premium methodologies and inputs suffered 11 from defects that had the effect over over-estimating the base cost of equity.<sup>214</sup> In 12 particular, he criticized Zepp for using analysts' forecasts of earnings per share 13 exclusively in his DCF analysis. Parcell believed it improper to use a single measure of 14 growth, especially when it reflected only projected data.<sup>215</sup> Parcell relied on the highest 15 growth rate for his DCF-based ROE recommendation. He explained that, if the highest 16 growth rate had been historical earning per share he would have relied on that. In this 17 case he relied on analysts' forecasts because they were highest but that he would not 18 always propose relying on them.<sup>216</sup> 19

Parcell criticized Zepp's FERC DCF method as combining two separate 20 DCF types used by the FERC. He recalculated Zepp's FERC DCF using what he

<sup>212</sup>T-9 (Zepp Direct) at 13. <sup>213</sup>T-9 (Zepp Direct) at 13-22. <sup>214</sup>T-12 (Parcell) at 37. <sup>215</sup>T-12 (Parcell) at 38. <sup>216</sup>Tr. 901-902 (Parcell).

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believes is the DCF model FERC applies to electric utilities. His recalculation results in
an estimated cost of equity of 10.1 percent.<sup>217</sup> Parcell also criticized various aspects of
Zepp's risk premium analyses.<sup>218</sup> He concluded by asserting that Zepp's ROE
estimates significantly exceed recent returns authorized by state regulatory agencies
which he claims averaged 10.48 percent in 2009 and 10.34 percent in 2010.<sup>219</sup>

6 Parcell submitted his own cost of equity analyses—a constant growth DCF
7 (one of the three DCF models used by Zepp), a CAPM analysis, and a comparable
8 earnings analysis (CEM). Each method was applied both to his own five-company
9 proxy group of small publicly traded utilities and to Zepp's 31-company proxy group.<sup>220</sup>
10 Parcell summarized his results<sup>221</sup> in terms of ranges which are:

11	Proxy Group	DCF	CAPM	CEI	Μ
12	Parcell Group	10.6% to 11.2%	7.7%	Mean Median	8.5% to 9.9% 8.0% to 9.8%
13	Zepp Group	10.2% to 10.4%	7.7% to 7.8%	Mean	10.4% to 10.9%
14				modian	

The DCF percentages contained in the chart are based on Parcell's "high" DCF results. He recommended use of his high DCF results in order to recognize the small size of AEL&P.<sup>222</sup> In his constant growth DCF model Parcell used five indicators of growth, including both projected and historical data.<sup>223</sup>

<sup>217</sup>T-12 (Parcell) at 46.

<sup>218</sup>T-12 (Parcell) at 46-50.

<sup>219</sup>T-12 (Parcell) at 50-51.

<sup>220</sup>T-12 (Parcell) at 8.

<sup>221</sup>T-12 (Parcell) at 25, 29, 31-32.

<sup>222</sup>T-12 (Parcell) at 25.

<sup>223</sup>T-12 (Parcell) at 23-24.

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Parcell found an appropriate ROE to be between 10.3 and 11.0 percent
based on his constant growth DCF model, between 7.7 and 7.8 based on his CAPM
and between 10 and 11 percent based on his CEM. He recommended the high end of
those ranges, 11 percent, as the appropriate ROE for AEL&P.<sup>224</sup>

Parcell disagreed with Zepp about the riskiness of AEL&P compared to 5 the electric utilities in Zepp's proxy group. He did not believe AEL&P was riskier 6 because of its take-or-pay Snettisham contract or because of its liquidity risk and limited 7 financing flexibility, as Zepp claimed.<sup>225</sup> Parcell did, however, consider AEL&P 8 somewhat riskier than the proxy companies. He did not choose to recognize that risk by 9 adding an explicit basis-point adjustment to the cost of equity. 10 His ROE recommendation contained an implicit risk adjustment, he testified, because he used 11 the highest growth rates in his DCF analysis and because he recommended the high 12 end (11 percent) of his equity range.<sup>226</sup> Pacell also noted that AEL&P's equity ratio, 13 53.8 percent, was higher than the equity ratios of the Electric Companies and the 14 Electric and Gas Companies listed by AUS Utility Reports, which ranged from 44 to 48 15 percent equity in the 2005 to 2009 period.<sup>227</sup> 16

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On reply, Zepp disagreed with many aspects of Parcell's analysis and concluded that Parcell significantly understated the cost of equity of the proxy groups and AEL&P's cost of equity.<sup>228</sup> Zepp contended that Parcell's models should have taken into account our decision in Order U-08-157(10)/U-08-158(10). In particular, Zepp criticized Parcell's constant growth DCF analysis because Parcell included

<sup>224</sup>T-12 (Parcell) at 35.
<sup>225</sup>T-12 (Parcell) at 51-54.
<sup>226</sup>T-12 (Parcell) at 6, 54.
<sup>227</sup>T-12 (Parcell) at 9-10, 36-54.
<sup>228</sup>T-10 (Zepp Reply) at 4.

U-10-29(15) - (09/02/2011) Page 35 of 44 historical growth rates in his five indicators of growth rather than relying exclusively on
analysts' forecasts.<sup>229</sup> Zepp restated Parcell's results based on his view of the
guidance contained in Order U-08-157(10)/U-08-158(10).<sup>230</sup>

Zepp's restatement of Parcell's DCF model estimates a cost of equity of
between 11.5 and 11.7 percent for the Parcell proxy group and between 11.2 and 11.4
percent for the Zepp proxy group. When Zepp restated Parcell's CAPM estimate, taking
the findings of Order U-08-157(10)/U-08-158(10) into account, the CAPM cost of equity
became 9.9 percent for the Parcell proxy group and 10 percent for the Zepp proxy
group. Zepp did not attempt to restate Parcell's CEM analysis<sup>231</sup>

Parcell testified that CAPM results have been lower than DCF results in 10 recent years because of current low yields on treasury bonds and the 2008-2009 11 decline in stock prices. He believes that while the CAPM estimates are lower, DCF 12 results may be somewhat higher due to higher yields attributable to the decline in stock 13 prices. Parcell believes it would be a mistake to entirely ignore CAPM analyses.<sup>232</sup> 14 Zepp testified that, although both he and Parcell reported CAPM results, they gave 15 16 them minimal weight. When Zepp restated Parcell's DCF and CAPM he weighted the constant growth DCF results 85 percent and the CAPM results 15 percent.<sup>233</sup> 17

#### Commission Decision

Although we consider all ROE analyses submitted to us by expert
witnesses, in recent cases we have relied most heavily on the constant growth variant
of the DCF model and have indicated our preferred ways of calculating it. We continue

<sup>229</sup>T-10 (Zepp Reply) at 13-24.
<sup>230</sup>T-10 (Zepp Reply) at 4-5.
<sup>231</sup>T-10 (Zepp Reply) at 4-5.
<sup>232</sup>T-12 (Parcell) at 36.
<sup>233</sup>T-10 (Zepp Reply) at 5.

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to give the most weight to constant growth DCF analyses in this case. We believe that
weighting is appropriate under current economic conditions.

The biggest difference between the two expert witnesses in this case is not the cost of equity they calculate for the proxy companies but the magnitude of the adjustment, whether implicit or explicit, necessary to account for the difference in risk between the proxy groups and AEL&P. Parcell believes AEL&P is somewhat riskier than the utilities in the proxy groups while Zepp believes that AEL&P's risks are greatly (350 basis points) in excess of proxy utilities.

Based on our review of the experts' testimony and all the other evidence
in the record concerning the finances and operations of AEL&P, we conclude that
AEL&P is riskier than the proxy utilities. However, we decline to accept that recognizing
that risk requires an adjustment of 350 basis points. Conversely, we do not believe that
adopting the upper end of the range of ROE analyses in this case, without an explicit
adjustment, would adequately compensate AEL&P for its greater risk.

Considering all the testimony on the cost of equity for the proxy groups, plus the special risk and risk mitigation factors applicable to AEL&P, we find that an ROE of 12.875 percent most reasonably represents AEL&P's cost of equity. Applying a 12.875 percent ROE to the 53.8 percent equity and combining that result with the application of the undisputed cost of debt of 5.3 percent to the 46.2 percent debt results in an overall weighted cost of capital for AEL&P of 9.375 percent.<sup>234</sup>

Rate Design

After investigation we are required to ensure that rates charged by a utility
 are just, reasonable and neither unduly discriminatory nor preferential.<sup>235</sup> To aid those

 $\begin{bmatrix} 2^{34}(12.875\% \text{ ROE X .538 equity}) + (5.3\% \text{ cost of debt X .462 debt}) = 9.375\% \\ \text{weighted cost of capital.} \\ & 2^{35}\text{AS } 42.05.431(a). \end{bmatrix}$ 

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determinations we have adopted regulations<sup>236</sup> requiring preparation and submission of 1 a cost-of-service study (COSS) under certain circumstances. Smaller utilities are 2 generally required to submit a COSS only when actively proposing new rate designs. 3 However, in order to more rigorously scrutinize larger electric utilities we require them to 4 submit a COSS in every rate case. AEL&P complied with that requirement (by 5 submitting its COSS and consultant Gray's testimony), though it intended to leave its 6 existing rate design unchanged by implementing its proposed rate increases on an 7 across-the-board basis.237 8

AEL&P's COSS incorporates its proposed rate increases and then 9 10 compares the revenues expected to be paid by each rate class to the revenues required from each to cover its allocated costs.<sup>238</sup> Two rate classes would pay less than their 11 allocated costs: Residential Rate 10 revenues were estimated to be 2.8 percent less, 12 and Manufacturing Rate 41 revenues were estimated to be 66.5 percent less. Three 13 rate classes would pay more than their allocated costs: Small Commercial Rate 20 14 revenues were estimated to be 5.7 percent more, Large Commercial Rate 24 revenues 15 16 were estimated to be 1.7 percent more and Street Light Rate 46 revenues were estimated to be 1.8 percent more.<sup>239</sup> Gray testified that, except for Manufacturing Rate 17 41 revenues, these results show the proposed across-the-board rate increases yield 18 revenues reasonably equal to the cost of providing service.<sup>240</sup> 19

<sup>238</sup> The AG agreed that the COSS complied with our regulations. T-11 Fairchild Direct at 37, 40.

<sup>239</sup>COSS at 16; T-1 (Gray Direct) at 11; AEL&P Second Errata, TA381-1 COSS,
 Page 16, Revised 8-10-2010.

<sup>240</sup>T-1 Gray Direct at 12-13.

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 $<sup>^{236}3</sup>$  AAC 48.500 – 3 AAC 48.560. The regulation establishes costs as the "fundamental basis" for establishing rates and recognizes the precept that a "cost causer" be "the cost payer" as one primary objective. 3 AAC 48.510(a)(1); 3AAC 48.520.

<sup>&</sup>lt;sup>237</sup>TA381-1 at 7; T-1 Gray Direct at 9.

Gray testifies that AEL&P currently provides service to only one customer under Manufacturing Rate 41.<sup>241</sup> He further states that AEL&P proposes to resolve this conflict by immediately closing Manufacturing Rate 41 to new customers and (in order to give the customer reasonable notice) terminating this rate class effective January 1, 2012.<sup>242</sup> On that date the customer would begin receiving service under the Large Commercial Rate 24 classification.<sup>243</sup> The change would be implemented through a separate tariff filing.<sup>244</sup>

Fairchild in her testimony on behalf of the AG<sup>245</sup> agrees with AEL&P's 8 proposal to terminate the Manufacturing Rate 41 classification and serve the one 9 customer now receiving service under that rate through the Large Commercial Rate 24 10 classification.<sup>246</sup> However, the AG makes two additional recommendations. Fairchild 11 recommends we establish a specific 5 percent variance trigger for further evaluating the 12 need for a rate redesign. Fairchild also recommends that we require AEL&P to re-run 13 its COSS to reflect the modified revenue requirement approved in this proceeding and 14 the elimination of the Manufacturing Rate 41 classification.<sup>247</sup> Then, If the re-run COSS 15 16 indicates a greater than 5 percent deviation between the cost of serving any customer class and the revenues generated by that class, she recommends AEL&P be required 17 to either redesign rates or explain in detail why such difference is just and 18 reasonable.248 19

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Regulatory Commission of Alaska 701 West Eighth Avenue, Suite 300 Anchorage, Alaska 99501 (907) 276-6222; TTY (907) 276-4533 In reply Gray agrees generally that AEL&P should always be prepared to
explain that its proposed rates are fair and reasonable.<sup>249</sup> However, he disagrees with
the proposition that some specific percentage variance should be adopted here to
trigger further scrutiny of AEL&P's rate design or any other utility's future rate design.
He also disagrees with Fairchild's recommendation of a 5 percent variance trigger
stating that a 10 percent variance would be more reasonable.<sup>250</sup>

The variance between the cost of providing service under Manufacturing
Rate 41 and its expected revenues appears too great to comply with the requirements
of our statute and regulations. However, we do not consider the matter further as
AEL&P has proposed to close the class, plans to terminate it in the near future, and the
AG agrees with the proposal to provide service through another class with a small
variance.

That resolution leaves only one class (Small Commercial Rate 20) with a variance (5.7 percent) exceeding the 5 percent trigger supported by the AG. Neither Gray nor Fairchild referred to any published variance standards for use in determining the propriety of rates. In response to Commissioner questioning at hearing Gray stated he did not know of any such standards.<sup>251</sup> Gray also stated that making changes in rate design is more appropriately done in the context of smaller rate increases rather than the larger rate increases in question here.<sup>252</sup>

In addition both Fairchild and Gray testified that the processes involved in preparing a COSS necessarily involve a degree of imprecision. Fairchild testified that each rate class should produce revenues "reasonably close" to its allocated cost of

<sup>249</sup>T-2 Gray Reply at 2.
 <sup>250</sup>Tr. 309-316.
 <sup>251</sup>Tr. 314.
 <sup>252</sup>Id. at 317-318.

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service but requiring an exact match would "inappropriately imply a level of precision
 that does not exist in the COSS."<sup>253</sup> On cross examination Gray similarly defended his
 positions by using the example of the "load research" portion of a COSS. He stated a
 10 percent variance is accepted in determining that "key factor" in the COSS process.<sup>254</sup>

We begin our analysis by noting that the COSS-related disputes here 5 were quite limited and consequently only a small part of our proceedings. We are 6 therefore not convinced that this docket requires us to adopt a new analytical standard 7 broadly applicable to any future COSS or that the understandably limited record 8 available in this case adequately prepares us to establish a variance standard. This is 9 particularly so in the absence of references to any commonly-accepted standard. While 10 that absence might suggest our record here is incomplete, it might also indicate that 11 other regulators have noted problems with that approach and have declined to adopt a 12 variance standard. We conclude that we should move slowly in considering the 13 adoption of any such standard. We do not adopt the standard proposed by the AG at 14 this time. 15

Instead, we first conclude that we should approve the termination of
Manufacturing Rate 41. At that point only one remaining class (Small Commercial Rate
20) has a variance (seven tenths of a percent) and that variance only slightly exceeds
the stringent standard proposed by the AG. We find all the remaining variances
demonstrated in the COSS, including Small Commercial Rate 20, demonstrate the
reasonably close relationship between allocated costs and expected revenues
described by Fairchild. We therefore conclude that AEL&P's proposed rates,

<sup>253</sup>T-11 Fairchild Direct at 39-40. <sup>254</sup>Tr. 310 – 312.

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implemented by across-the-board rate increases based upon the existing rate design,
 are just, reasonable, and neither unduly discriminatory nor preferential.

3 || <u>Rates</u>

Based upon our determinations above, we find that AEL&P has a revenue 4 deficiency of \$6,727,383.255 This deficiency could be recovered through a 27.24 5 percent across-the-board increase to energy and demand charges.<sup>256</sup> 6 However. AEL&P has proposed to forego that portion of its revenue deficiency in excess of the 7 amount that could be recovered through a 24 percent across-the-board increase to 8 energy and demand charges.<sup>257</sup> We approve this proposal and grant AEL&P its 9 requested permanent 24 percent across the board increase to energy and demand 10 charges. We had previously granted AEL&P a 20 percent interim and refundable 11 across the board increase to energy and demand charges in this proceeding.<sup>258</sup> No 12 refund is required, and AEL&P is relieved of the obligation under Order U-10-29(2) to 13 retain funds in an escrow account. 14

# 15 Other Matters

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AEL&P filed a copy of its currently applicable credit card processing contract for our approval.<sup>259</sup> We received no comments or testimony objecting to this credit card processing contract. We accept AEL&P's credit card processing contract with Speedpay, Inc., signed March 24, 2004, as amended November 2, 2009, as fulfilling AEL&P's obligations under paragraph 13 of the stipulation approved in Order U-05-90(7).<sup>260</sup>

<sup>255</sup> See Appendix B, attached.
<sup>256</sup> Appendix B.
<sup>257</sup> TA381-1 at 3-4.
<sup>258</sup> Order U-10-29(2) at 11.
<sup>259</sup> TA381-1 at 7, Exhibit 4.
<sup>260</sup> Order U-05-90(7), Appendix at 6.

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Regulatory Commission of Alaska 701 West Eighth Avenue, Suite 300 Anchorage, Alaska 99501 (907) 276-6222; TTY (907) 276-4533 AEL&P was originally authorized in 1974 to implement a COPA with quarterly rate revisions.<sup>261</sup> Although the record is not entirely clear, it appears that AEL&P was authorized to make COPA rate revisions on a biannual basis as part of the COPA revisions authorized in 1987.<sup>262</sup> In this proceeding, AEL&P requested permission to file quarterly COPA revisions.<sup>263</sup> No party objected to this change, and we approve it.

7 || <u>Tariff Sheets</u>

8 We approve revised Tariff Sheet Nos. 104, 105, 113, 114, 119, 128, 131,
9 132, 135, 136, 168, 169, 170, and 171, filed May 3, 2010, with TA381-1 under the cover
10 sheet entitled Permanent Rates, effective the date of this order. Validated copies of the
11 approved tariff sheets will be returned under separate cover.

12 || Final Order

This order constitutes the final decision in this proceeding. This decision may be appealed within thirty days of the date of this order in accordance with AS 22.10.020(d) and the Alaska Rules of Court, Rules of Appellate Procedure (Alaska R. App. P. 602(a)(2)). In addition to the appellate rights afforded by AS 22.10.020(d), a party may file a petition for reconsideration as permitted by 3 AAC 48.105. If such a petition is filed, the time period for filing an appeal is then calculated under Alaska R. App. P. 602(a)(2).

<sup>263</sup>TA381-1 at 9-11.

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<sup>&</sup>lt;sup>261</sup>Order U-74-58(1), Order Allowing Tariff Revision to go Into Effect Temporarily Pending Investigation and Possible Hearing, dated June 21, 1974.

<sup>&</sup>lt;sup>262</sup>See Order U-87-57(1), Order Suspending Permanent Operation of Tariff Filing, Approving Tariff Filing on an Interim Basis, and Requiring Reports, dated August 5, 1987 (since that date, AEL&P has filed COPA revisions in May and October of each year).

ORDER 1 THE COMMISSION FURTHER ORDERS: 2 1. The Unopposed Partial Stipulation, filed April 28, 2011, by Alaska 3 Electric Light and Power Company and the Attorney General is accepted, subject to the 4 5 express condition that no issue should be considered to have been finally determined or 6 adjudicated by virtue of the stipulation. 2. The request filed by Alaska Electric Light and Power Company in 7 TA381-1 for a 24 percent across-the-board permanent rate increase on energy and 8 demand charges, is approved. 9 3. The interim and refundable rates established in this docket are made 10 11 permanent. 4. Tariff Sheet Nos. 104, 105, 113, 114, 119, 128, 131, 132, 135, 136, 12 168, 169, 170, and 171, filed May 3, 2010, with TA381-1 under the cover sheet titled 13 Permanent Rates, are approved effective the date of this order. 14 DATED AND EFFECTIVE at Anchorage, Alaska, this 2nd day of September, 2011. 15 16 BY DIRECTION OF THE COMMISSION (Commissioners Kate Giard and Robert M. Pickett, 17 not participating.) 18 19 MISS 20 21 22 23 24 25 26 U-10-29(15) - (09/02/2011) Page 44 of 44

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